GOVERNMENT OF CANADA

REPORT AS TO THE SUFFICIENCY OF SEAWAY TOLLS AND PROPOSED CHANGES RELATED TO THE FINANCIAL REQUIREMENTS OF THE ST. LAWRENCE SEAWAY AUTHORITY

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SUMMARY

On April 6, 1966, agreement was reached, for the purpose of public hearings, with the U.S. Saint Lawrence Seaway Development Corporation as follows:

1. to raise tolls on the Montreal-Lake Ontario section of the Seaway by approximately 10% and to divide toll revenues on a 72/28 basis rather than the 71/29 basis as at present;

2. to introduce a $100.00 per lockage fee, phased in over five years, on the Welland with the present cargo tolls remaining in suspension.

The "Notice of Hearings" in Ottawa and Chicago was published, and the Memorandum of Adjustment, providing for the division of tolls - 72% to Canada and 28% to the United States - effective for five years commencing in 1967, was signed by both Entities on the 15th of April, 1966.

For reasons cited in this Report, the Authority has come to the following conclusions with respect to the new Tolls Schedule which was proposed for purposes of the public hearings:

(1) That the 10 per cent increase for the St. Lawrence Section as per the schedule is related as realistically as possible to the financial requirements of the Authority and is economically justifiable.

(2) The Agreement entered into with respect to the sharing of tolls for the Montreal-Lake Ontario Section on a 72/28 ratio is an integral part of the general increase. It already reflects substantial concessions by Canada and the Authority feels that it represents its minimum position acceptable for five years.

(3) The present formula for calculating Gross Registered Tonnage which adversely affects Canadian vessels requires modification so that all vessels shall have the option to calculate G.R.T. in accordance with rules for the measurement of vessels prescribed for registration purposes in either Canada or the United States.

(4) That the adoption by Canada of the per lockage fee for the Welland Canal which is related to the recovery of Operation and Maintenance costs is justified and not excessive. It is the view of the Authority that this is quite properly a decision for the Canadian Government.

(5) The proposed Schedule should be modified in respect of vessels making partial transits of the Welland or transiting the Canal in ballast.

1. BACKGROUND

The Canadian and United States Statutes incorporating the two Seaway Entities, The St. Lawrence Seaway Authority and the Saint Lawrence Seaway Development Corporation, indicate that Seaway tolls sufficient to operate and maintain and to amortize the cost of the Seaway, should be charged. In 1959 a Tariff of Tolls based on estimates of future Seaway traffic was established by agreement between Canada and the United States and this agreement provided that the Entities should, "not later than July 1, 1964, report to their respective Governments as to the sufficiency of the tolls to meet the statutory requirements and to cause the Tariff to be reviewed accordingly".

The first toll review took place in 1964, five years after the opening of the deep waterway to navigation. At the time, Seaway traffic was of the order of 30% below the estimates upon which the tolls had been originally based, the total Seaway debt had increased significantly because of the shortfall in toll revenues, and it was apparent that an increase in toll levels was indicated if statutory requirements were to be met. Notwithstanding this, it was decided after lengthy discussions between the two Entities that agreement on a new toll level should be deferred. The Authority and the Corporation, therefore, proposed a further extension of the initial Tariff and the development period through 1966 and agreed that the date of reports to Governments be deferred to July 1, 1966. It was also decided that the Seaway's development period should be deemed to terminate at the end of 1966 and that the Entities should recommend in their reports, a level of tolls "related as realistically as possible" to the financial requirements.

2. THE PROPOSED SCHEDULE OF TOLLS

In order to examine as objectively as possible the tolls question prior to reporting to Governments by July 1, 1966, the two Seaway Entities agreed that each would obtain the services of independent economic consultant firms to make estimates of traffic development on the Seaway and to assess the impact upon such development of possible increases in the existing level of tolls. Both the reports submitted by the two consultant firms which were engaged include a detailed commodity by commodity analysis of Seaway traffic embracing both bulk and general cargo, and with particular attention to the two major components of the traffic, iron ore and grain. On the basis of such analysis, projections of the probable growth of Seaway traffic were made and both the analyses and the traffic projections have received intensive study by representatives of the two Entities.

As a result of this study, the Entities have agreed that the following range of traffic estimates to the year 1980 represents a reasonable assessment, in the light of present knowledge, of the probable growth in Seaway cargo tonnage during this fifteen year period.

SEAWAY TRAFFIC RANGE AS
FORECAST FOR THE PERIOD 1965-1980
(In millions of short tons)

	Montreal-Lake Ontario Section		Welland Canal	
	Range		Range	
1965	43.4	(actual traffic)	53.4	(actual traffic)
1970	44	54	54	64
1975	50	61	60	71
1980	55	69	65	79

A breakdown of this traffic on the Montreal-Lake Ontario section, shows the following range for the principal commodity groups.

	1970	1975	1980
	(Range in millions of short tons)		
Iron Ore	16-20	19-23	21-25
Grain	14-18	16-20	18-22
Other Bulk	9-11	9-11	11-13
General Cargo	4-6	5-7	6-8
Total Cargo(1)	43-55	49-61	56-68

Both the consultant firms expressed their views that the development of Seaway traffic would not be adversely affected by moderate changes in the Seaway tolls. The main reason given is that the present and prospective advantages of the Seaway route would continue to outweigh the small portion of shippers' transportation costs which tolls represent.

Following consideration of the consultants' reports the two Entities held a series of meetings in an effort to reach agreement on a new schedule of tolls for the Seaway. A decision was reached that "for purposes of the public hearings" the following changes to the toll schedule would be proposed for a five year period 1967-1971.

(1) to raise tolls on the Montreal-Lake Ontario section of the Seaway by approximately 10%,
(2) to introduce a $100.00 per lockage fee, phased in over five years, on the Welland with the present cargo tolls remaining in suspension.

It was also agreed that during this five year period toll revenues would be divided on a 72/28 basis rather than 71/29 as at present and a Memorandum of Adjustment to this effect was signed by the two Entities on April 15, 1966.

(1) Totals differ slightly from previous table due to rounding.

The following Schedule sets out the new toll proposals as revised after the public hearings.

		$
1.	For transit Montreal to or from Lake Ontario, a composite toll, comprising	
	(a) a charge per gross registered ton, according to the national registry of the vessel, applicable whether the vessel is wholly or partially laden, or is in ballast. (All vessels shall have an option to calculate gross registered tonnage in accordance with rules for the measurement of vessels prescribed for registration purposes in either Canada or the United States.)	.04½
	(b) a charge per ton of cargo as certified on ships' manifest or other documents, as follows:	
	(i) bulk cargo	.44
	(ii) general cargo	1.00
	(c) a charge per passenger	4.00
	(d) subject to the preceding provisions of this item, minimum charges shall be:	
	(i) Pleasure Craft	21.00
	(ii) Other Vessels	35.00

		$
2.	For transit Lake Ontario to or from Lake Erie a composite toll comprising	
	(a) a charge per ton of cargo as certified on ships' manifest or other documents, as follows:	
	(i) bulk cargo	.02 (suspended)
	(ii) general cargo	.05 (suspended)
	(b) a charge per passenger	4.00 (suspended)
	(c) lockage charge, per lock, which may be shared by vessels in tandem and is subject to a 50 per cent reduction for vessels in ballast:	

	1967 $	1968 $	1969 $	1970 $	1971 $
(i) cargo or passenger vessel..	20.00	40.00	60.00	80.00	100.00
(ii) pleasure craft.	3.00	3.00	3.00	3.00	3.00
(iii) other vessels..	5.00	5.00	5.00	5.00	5.00

3. For partial transit of the Seaway:
   (a) Between Montreal and Lake Ontario, in either direction, 15 per cent per lock of the toll under item 1, with a charge of $3.00 per lock for pleasure craft transits and $5.00 per lock for the transit of other vessels.

   (b) Between Lake Ontario and Lake Erie (Welland Canal), in either direction, 50 per cent of the toll under item 2. (No toll will be assessed for transits of Lock 1 of the Third Welland Canal at Port Dalhousie.)

3. THE FINANCIAL BASIS FOR THE PROPOSED TOLLS SCHEDULE

(a) Montreal-Lake Ontario Section

This section of the Seaway comprises seven locks, five of which are owned and operated by Canada and two by the United States.

During the seven navigation seasons so far completed the traffic and revenues of this section have fallen short of the 1958 estimates upon which the original tariff of tolls was based. For this same period actual operation and maintenance expenses have substantially exceeded 1958 estimates. As a consequence the combined debt of the two entities related to this section now substantially exceeds the forecast:

SEAWAY DEBT AT DECEMBER 31, 1965

(in millions)

	Authority	Corporation	Total
Actual	$354.8	$141.6	$496.4
Forecast (in 1958)	320.9	133.5	454.4
Increase over forecast	$ 33.9	$ 8.1	$ 42.0

For 1965 tolls income was insufficient by $7.9 million:

DEFICIENCY IN 1965 TOLLS INCOME

(in millions)

	Authority	Corporation	Total
1965 tolls income	$15.5	$ 6.3	$ 21.8
Debt service requirements	18.3	6.4	24.7
Operating costs	3.3	1.7	5.0
	21.6	8.1	29.7
Deficiency	$ 6.1	$ 1.8	$ 7.9

While traffic has not yet reached the levels forecast in 1958, the last three navigation seasons have shown a most encouraging growth. However, because of the shortfall in revenue since 1959 and the consequent increase in debt it is not realistic to expect that with the existing level of tolls traffic can develop fast enough to pay off the Authority's financial obligations within the 43 years remaining of the original 50 year amortization period. Moreover, operations and maintenance costs are continuing to rise.

While there are many unknown factors involved in the assessment of future traffic, canal capacity, operation and maintenance costs, etc, the Authority believes that, in the light of the consultants' forecasts, it may be possible by raising the tolls by approximately 10% in 1967, and with a tolls sharing ratio of 72/28 to obtain sufficient revenues to meet the financial requirements.

(b) Welland Canal

This facility is owned and operated by Canada. Since 1962 the tolls provided for in the tariff have been suspended. No recovery of capital cost or the cost of operating and maintaining the canal has been made since that time - in 1965 the operating loss amounted to $8.2 million. It is now proposed that a lockage charge, designed ultimately to recoup the cost of operating and maintaining the canal should be introduced.

The lockage charge would be "phased-in" over the five year period 1967-1971, commencing with a charge of $20 per lock in 1967 rising to $100 per lockage in 1971. Cost of a full transit of the Welland Canal would, therefore, be $160 in 1967, rising to $800 in 1971. As a measure to improve efficiency of operations tandem lockages would be permitted at the same rate as a single transit so that two ships could split the lockage charge. During this five year period collection of the tolls on cargo tonnage transiting the Welland Canal would remain suspended.

The possibility of recouping operations and maintenance costs on the Welland by re-introducing the suspended G.R.T. charges and cargo tolls was considered and found to be impractical. The reimposition of this kind of toll structure would have to be accompanied by a substantial increase. However, it would have a different incidence from the lockage charge to a degree that would affect adversely the more sensitive portions of important Seaway trade, particularly iron ore.

4. THE ECONOMIC BASIS FOR THE PROPOSED TOLLS SCHEDULE

Since the opening of the deep waterway in 1959, the Seaway has become an increasingly significant link in the North American transportation system. Its continuing success in this regard in the future depends, however, on it remaining competitive and being able to carry some of the trade of the Great Lakes hinterland more cheaply than is possible with any other means. As long as it affords this opportunity, traffic will continue to grow and the whole North American economy will benefit from the genuine economic competition that the Seaway affords in the supply of major inland transportation.

To understand properly the role of the Seaway it is necessary to recognize that, for most of the traffic it carries, it is a competitive and not an exclusive route. As such, it should not expect to enjoy special or exclusive privileges in its future development which could be construed to be a misallocation of public resources. That is, there is a strong case on economic grounds for user charges on the Seaway sufficient to amortize investment, particularly major new investment, and to cover operating costs.

This approach is, we believe, consistent with the findings of Canada's recent Royal Commission on Transportation which has stated that -

> "The solution of the problem of securing an optimum allocation of resources in each mode of transport will be achieved ... by levying appropriate charges, including return on investment, on all ... modes of transport for roadway, navigational or terminal facilities provided, sufficient to assure that each bears its appropriate costs of operation." (1)
>
> and
>
> "The objective of efficiency in the provision of transport services in the nation demands that each mode shall operate so as to bear the real costs of the resources used. To the extent that law and public policy force a mode to utilize its resources in the provision of service, adequate remuneration should be made. To the extent that public policy provides resources in the form of facilities to any mode, adequate charges should be levied to cover the associated real costs." (2)

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(1) Royal Commission on Transportation (Queen's Printer, 1961) Volume II, page 36
(2) Ibid page 38

The competitive impact of the Seaway is, of course, reflected in the rapid growth in the volume of traffic which it carries. This volume has increased more than five times since 1945, and has more than doubled since 1959, and there are good future prospects for additional increases. There is, however, a danger that the potential efficiency and cheapness of transportation services which the Seaway offers may not be realized because of inefficient carrier operations. This would be the result if the carriers and all attending harbour and tributary transportation services do not become geared to the peculiar advantages of the Seaway. These advantages are exemplified in the present operations of the largest bulk carrier vessels which the locks can accommodate, in particular the self-loading and unloading vessels, and in the operations of the largest modern ocean-going bulk cargo and mixed cargo vessels. The operations of these carriers are most likely to remain competitive throughout the foreseeable future.

The efficiency with which the present capacity of the Seaway is used is dependent on the sizes of ships using the Seaway, the degree to which these ships are fully loaded for each transit, and the efficiency of the lockage operations. In 1964, over 40% of the cargo vessels transits of the Montreal-Lake Ontario section of the Seaway were made by ships of less than four hundred feet in length. Even when these smaller vessels transit the Seaway in tandem lockages they carry, on the average, only one third the cargo tonnage of the largest vessels in single transit. It is obvious therefore, that the size composition of the ships that use the Seaway makes a very great difference in the amount of cargo which can be handled in a season.

Under conditions in which the Seaway is operating with transit capacity to spare, the present toll structure creates no particular problem. In fact, it was probably the best approach to use during the early period of transition to the new standards of size allowed by the larger locks. However, this toll structure provides no incentive to ship operators to make efficient use of the Seaway facilities. Under present traffic growth and operating conditions, particularly with respect to the Welland Canal, it is reasonable to conclude that the Seaway's toll structure should, at least in part, reflect the degree of Seaway capacity utilized. <u>A toll structure which would reward efficiency in the use of canal capacity, would have the added effect of promoting efficiency throughout the Seaway, in harbour operations and in ship capacity utilization. It would mean giving the Seaway the best possible chance to remain competitive with other modes of transportation.</u>

The proposal that a per lockage fee on the Welland be added to the toll structure of the Seaway system will have the effect of basing part of the toll incidence on capacity utilized. Among other things, it is anticipated that such a fee will encourage the arrangement of multiple lockages for small ships. At present tandem lockages are formed only when two small ships happen to be in a line-up. However, with suitable encouragement the operators of

these small ships could arrange their schedules so as to make tandem passages of the canal system nearly all the time.

In recognition of the fact that it is desirable to give the shipping industry enough time to plan and respond to the incentive inherent in the per lockage principle, it is proposed that the new toll be phased-in over a five year period.

5. THE IMPACT OF THE PUBLIC HEARINGS ON THE PROPOSED TOLL CHANGES

The Notices of Hearings were published by the two Entities early in April and hearings were held in Ottawa on May 25-26 and in Chicago from June 8-10.

There were 58 written briefs submitted to the Authority, 14 of which were presented orally at the public hearings in Ottawa and 4 of which were received in the period up to June 20 following the hearings. The U.S. Seaway Corporation received 34 written submissions which were read into the record at the hearings held in Chicago. There were, in addition, some 40 appearances made by interested parties at Chicago and 8 supplemental briefs filed prior to June 20.

Of all the submissions made to the two Entities only a small minority supported the increases proposed in the tariff. At both the Ottawa and Chicago hearings there was no room for doubt that the great majority of the interested parties who expressed their views on the tolls issue were strongly opposed to any change in the existing tolls schedule; there were, in fact, not a few that recommended total abolition of Seaway tolls. At the same time it should be emphasized that there was little solid evidence put forward by the interested parties to disaffirm the conclusions reached by the objective studies made by the independent consultant firms employed by the two entities. In brief it does not appear that the anticipated rate of growth in Seaway traffic would be adversely affected by the application of toll increases of the kind proposed.

Thus, the consensus of opinion reached by the Authority and the Tolls Committee as to the justifiable need for a tolls increase to bring revenues more in line with the requirements laid down by the Canadian and U.S. Governments prior to the opening of the deep waterway in 1959 has been generally reaffirmed. However, following the hearings and receipt of supplementary briefs, consideration has been given to certain particular situations which indicated that some adjustment to the original proposals was warranted. These were:-

(a) Welland Canal Industry

Where ship service is essential or important for industries located on the Welland Canal such vessels may take advantage of a 50% reduction in the proposed per lockage fee for partial transit between Lake Ontario and Lake Erie, in either direction.

(b) Vessels Returning in Ballast

Certain industries indicated particular objections to the per lockage fee proposed for the Welland Canal because they are involved in one-way hauls and to provide relief the schedule is being modified to include a 50% reduction of the per lockage fee for vessels in ballast.

(c) Measurement of Gross Registered Tonnage (GRT)

An element of discrimination exists against Canadian registered lakers because the rules for measurement prescribed in Canada result in their paying approximately a 10% higher toll per G.R.T. than U.S. registered vessels. The corrective measure introduced in the proposed schedule provides as follows: "All vessels shall have an option to calculate G.R.T. in accordance with rules for the measurement of vessels prescribed for registration purposes in either Canada or the United States."

GENERAL COMMENTS

The tolls schedule proposed in this Report represent, in the view of the Authority, an additional charge on users which is very moderate when compared with the benefits the Seaway provides - or when compared to the very large investment which Canada has put into the Seaway.

The Montreal-Lake Ontario section of the Seaway was undertaken on the basis that it be paid for out of charges to those using it and benefiting by it. The opening of the deep waterway in 1959 has resulted in a rapid growth of water traffic in and out of the Great Lakes and has made it possible for much larger and more economic vessels to carry goods from the Atlantic to the head of the Lakes and return. As was pointed out by the President of one of Canada's largest shipping companies at the Ottawa hearings, it was the present Seaway tolls that provided the incentive to the shipping industries to build the large efficient lakers which are now able to move cargo in and out of the North American hinterland at costs below those prevailing prior to 1959.(1) It is estimated that the direct savings to the users in transporting last year's 43.4 million tons of cargo were of the order of $78 million after all transportation costs and tolls, or about a saving of $1.80 per ton of cargo. The proposal for a 10% increase in tolls represents an increase of about 5 cents per ton for the users who will still obtain benefits amounting to about $1.75 per ton.

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(1) The St. Lawrence Seaway Authority: Proceedings of Public Hearings held at Ottawa, Vol. 2, page 158, May 26, 1966.

Special mention should be made of the savings the Seaway affords the Canadian and American grain producers. If the proposals are accepted the Seaway will still reduce the cost of exporting a bushel by about 4.2 cents, resulting in an annual saving for the Canadian farmer, based on last years' exports alone, of about $13,500,000. The toll proposals would result in an increase of about .2 to .3 cents a bushel in comparison to the benefit of 4.2 cents - some 15 to 20 times as great as the increase.

On the Welland Canal, which has been built and operated entirely with Canadian taxes, the proposed charges should cover operating costs by 1971. Tolls on the Welland are, of course, not a new development - linesmen fees of $35 to $50 were charged on the Canal from its opening in 1932 until the Authority took over in 1959 at which time an effective toll of approximately 5 cents per ton was introduced. This latter toll was suspended in 1962.

The combined effect of the 10% increase on the Montreal-Lake Ontario and the per lockage fee on the Welland will by 1971 amount, on the average, to an extra 33¢ in the cost of taking a ton of general cargo through both sections of the Seaway and 11¢ per ton of bulk cargo, amounts which are equivalent to, for example,

one third of a cent per bushel of wheat
11¢ per ton of iron ore, coal etc.
25¢ to 40¢ for a small European car.

Such a modest increase in the cost of Seaway services as the one proposed contrasts sharply with the rise in the costs of many other shipping services. For instance, in 1965 the shipping conference lines serving direct overseas trade to the Great Lakes ports raised their rates by an average of about $1.80 per ton on general cargo. In 1966 the port of Toronto increased its cargo handling charges by 40¢ a ton on most itmes handled over docks, and Hamilton Harbour charges were raised by 20¢ a ton. The National Harbours Board ports at Montreal, Trois-Rivieres and Quebec, all engaged in Seaway trade, have also adopted increased rates, amounting to approximately 20 per cent, effective in 1966. Upward adjustments have also been introduced by U.S. Great Lakes ports, particularly Milwaukee and Detroit. One final example of the general rise in transportation costs is the increase in average ocean freight rates from 16.1¢ per bushel charged in 1959 for moving grain from lower St. Lawrence ports to the U.K. to 22.9¢ per bushel in 1964.

CONCLUSIONS

The fact that opposition to the proposed tolls was expressed during the public hearings should not be allowed to obscure the realities of the situation. It is thoroughly understandable that those interests which will have their costs most directly affected by a tolls increase - the users of the Seaway - would express opposition. At the same time it should also

be recognized that since the opening of the deep waterway in 1959 the Montreal-Lake Ontario Section has sustained a loss of approximately $47 million. Of this, $36.3 million was borne by Canada and $10.7 million by the United States. In addition, all of the operating cost of the Welland Section, amounting to $35.2 million, has been a charge to the Canadian taxpayer. Therefore, of the total operating losses for both sections of $82.2 million, Canada's share has been $71.5 million, which is 87%, under circumstances where only about one-half of the trade benefits accrue to Canada. Unless there are adequate user charges the losses will continue to accumulate and will amount to hundreds of millions of dollars.

From a legal, financial and economic point of view there would appear to be a solid basis for implementing the proposed changes in the Seaway tariff of tolls. The legal framework formulated prior to the opening of the Seaway in 1959 and within which the two Entities still operate clearly imposes a responsibility upon them to establish a toll level sufficient to pay operation, maintenance and interest costs and to retire capital by 2009. In financial terms the present tolls cannot be considered sufficient to meet these obligations. Finally, it appears that the economics of the Seaway operation are such as to permit an increase in tolls of the size proposed without having an adverse effect upon traffic growth.

be recognized that under the operation of the trade agreement, as with the multi-lateral trade agreements, [illegible] a gain of approximately 247 millions. In 1955, [illegible] million was made by Canada and [illegible] million by the United States. [illegible] all of the operating part of the [illegible], amounting to [illegible] million, has been a change in the [illegible] imbalance. Therefore, of the total operating increase for both members of [illegible] million, Canada's share has been [illegible] million, which is [illegible], under circumstances where only about [illegible] of the trade benefits accrue to Canada. Indeed, [illegible] whereas the [illegible] will continue to accumulate and will [illegible] the hundreds of millions of dollars.

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